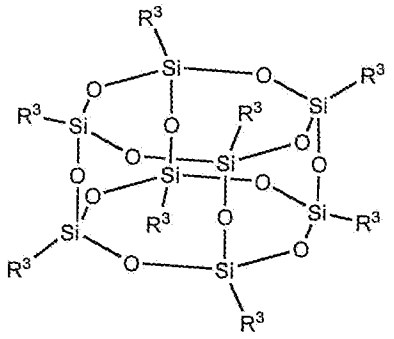
Amendments to the Claims:

1-40. (Canceled)

41. (Currently Amended) In a composition for use in microlithographic processes, wherein the composition comprises a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane having an alcohol functionality and that said compound comprises a polyhedral oligomeric silsesquioxane having an alcohol functionality, said composition further comprising a cross-linking agent.

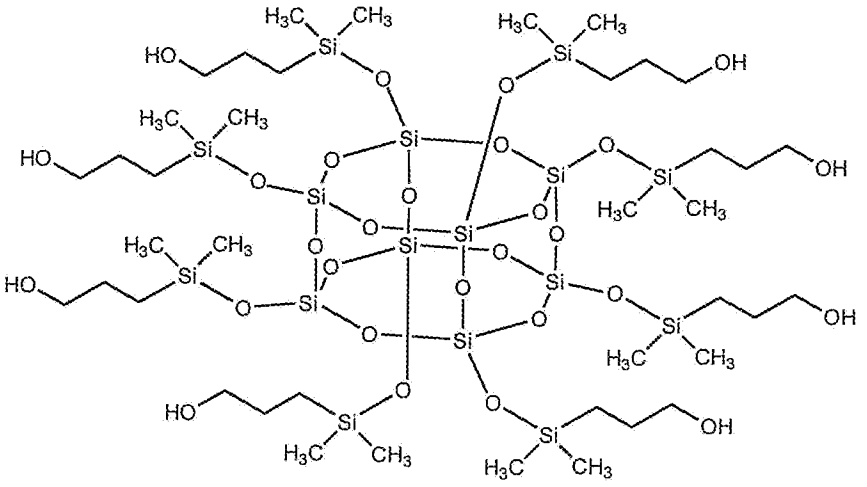
42. (Original) The composition of claim 41, wherein said constituent has the formula



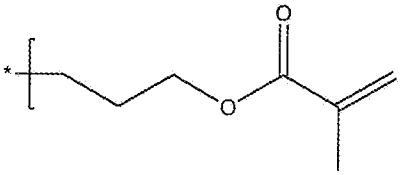
(III)

wherein each R^3 is individually selected from the group consisting of hydrogen, alkyls, aryls, hydroxypropyldimethylsilyloxy, and olefinic moieties.

43. (Original) The composition of claim 42, wherein said constituent is a compound having the formula



44. (Original) The composition of claim 42, wherein at least one R^3 is

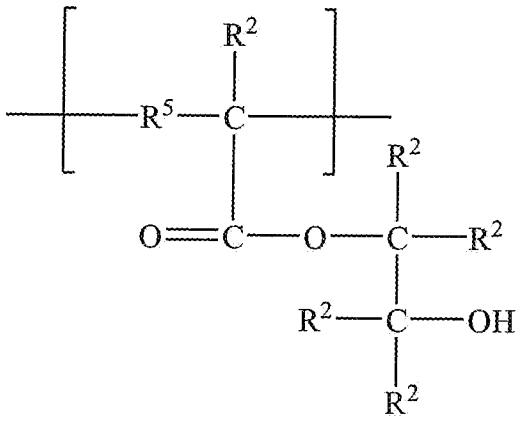


where "*" designates Si on (III).

45. (Previously Presented) The composition of claim 41, said constituent being a polymer, and said polymer further comprising recurring monomers having an alcohol functionality.

46. (Previously Presented) The composition of claim 45, said polymer comprising recurring monomers having the formula

(IV)



wherein each R^2 is individually selected from the group consisting of hydrogen, alkyls, and aryls, and each R^5 is individually selected from the group consisting of alkyls and aryls.

47. (Original) The composition of claim 46, wherein the molar ratio of polyhedral oligomeric silsesquioxane to (IV) is from about 15:85 to about 30:70.

48. (Previously Presented) The composition of claim 41, said composition further comprising a catalyst.

49. (Previously Presented) The composition of claim 41, wherein said cross-linking agent is selected from the group consisting of aminoplast cross-linking agents.

50. (Canceled)

51. (Previously Presented) The composition of claim 48, wherein said composition comprises a weak acid and a strong acid.

52. (Original) The composition of claim 41, wherein said composition gives a spin bowl compatibility test result of at least about 90%.

53. (Currently Amended) A structure used in microlithographic processes, said structure comprising:

a substrate; and

a layer on said substrate, said layer formed from a composition comprising a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane having an alcohol functionality and said compound comprises a polyhedral oligomeric silsesquioxane having an alcohol functionality, said composition further comprising a cross-linking agent.

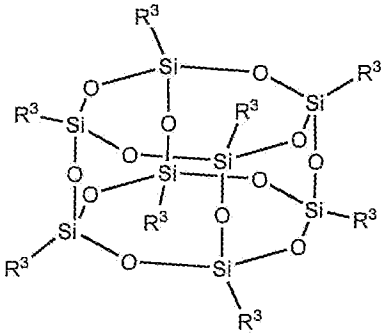
54. (Previously Presented) The structure of claim 53, said structure further comprising an anti-reflective coating between said substrate and said layer.

55. (Original) The structure of claim 53, said structure further comprising a photoresist adjacent said layer.

56. (Original) The structure of claim 54, said structure further comprising a photoresist adjacent said layer.

57. (Original) The structure of claim 53, wherein said substrate is selected from the group consisting of Si substrates, SiO_2 substrates, Si_3N_4 substrates, SiO_2 on silicon substrates, Si_3N_4 on silicon substrates, glass substrates, quartz substrates, ceramic substrates, semiconductor substrates, and metal substrates.

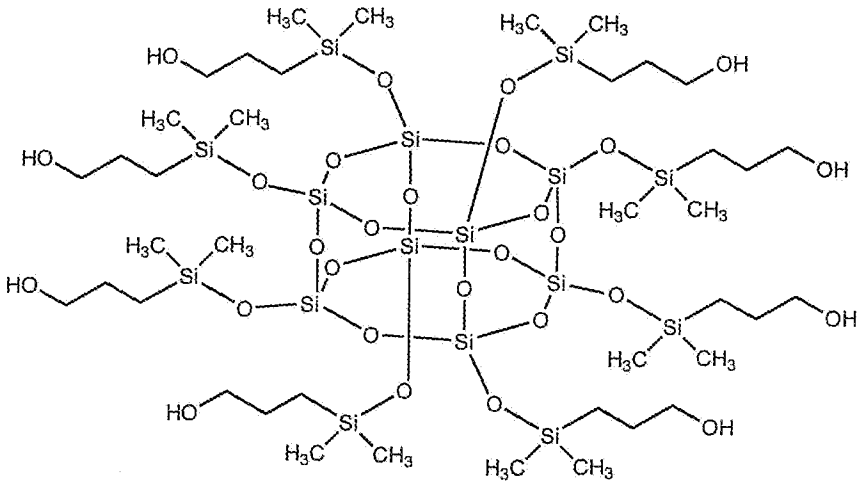
58. (Original) The structure of claim 53, wherein said constituent has the formula



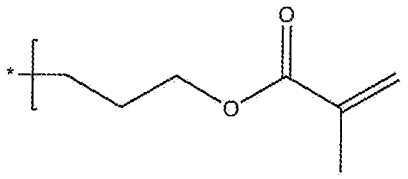
(III)

wherein each R^3 is individually selected from the group consisting of hydrogen, alkyls, aryls, hydroxypropyldimethylsilyloxy, and olefinic moieties.

59. (Original) The structure of claim 58, wherein said constituent is a compound having the formula



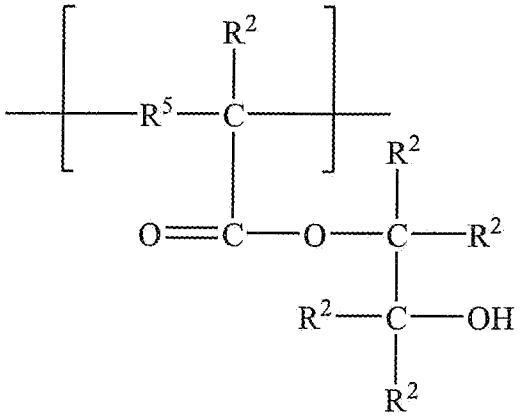
60. (Original) The structure of claim 58, wherein at least one R^3 is



where "*" designates Si on (III).

61. (Previously Presented) The structure of claim 53, said constituent being a polymer, and said polymer further comprising recurring monomers having an alcohol functionality.

62. (Previously Presented) The structure of claim 61, said polymer comprising recurring monomers having the formula



(IV)

wherein each R^2 is individually selected from the group consisting of hydrogen, alkyls, and aryls, and each R^5 is individually selected from the group consisting of alkyls and aryls.

63. (Previously Presented) The structure of claim 53, said composition further comprising a catalyst.

64. (Previously Presented) The structure of claim 63, wherein said cross-linking agent is selected from the group consisting of aminoplast cross-linking agents.

65. (Canceled)

66. (Previously Presented) The structure of claim 63, wherein said composition comprises a weak acid and a strong acid.

67. (Original) The structure of claim 53, wherein said layer gives a spin bowl compatibility test result of at least about 90%.

68. (Original) The structure of claim 53, wherein said layer has a thickness of less than about 2,150 Å.

69. (Previously Presented) The structure of claim ~~55~~ 90, wherein said photoresist has a thickness of less than about 200 nm.

70. (Original) The structure of claim 56, wherein said photoresist has a thickness of less than about 200 nm.

71. (Currently Amended) A method of forming a structure for use in microlithographic processes, said method comprising the steps of:

providing a substrate; and

forming a layer of a composition on the substrate, said composition comprising a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane having an alcohol functionality and that said compound comprises a polyhedral oligomeric silsesquioxane having an alcohol functionality, said composition further comprising a cross-linking agent.

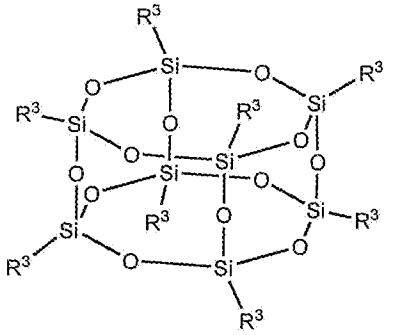
72. (Original) The method of claim 71, further including the step of applying an anti-reflective coating to said substrate, and wherein said layer forming step comprises applying the layer to said anti-reflective coating.

73. (Original) The method of claim 71, further including the step of applying a photoresist to said layer.

74. (Original) The method of claim 72, further including the step of applying a photoresist to said layer.

75. (Original) The method of claim 71, wherein said substrate is selected from the group consisting of Si substrates, SiO_2 substrates, Si_3N_4 substrates, SiO_2 on silicon substrates, Si_3N_4 on silicon substrates, glass substrates, quartz substrates, ceramic substrates, semiconductor substrates, and metal substrates.

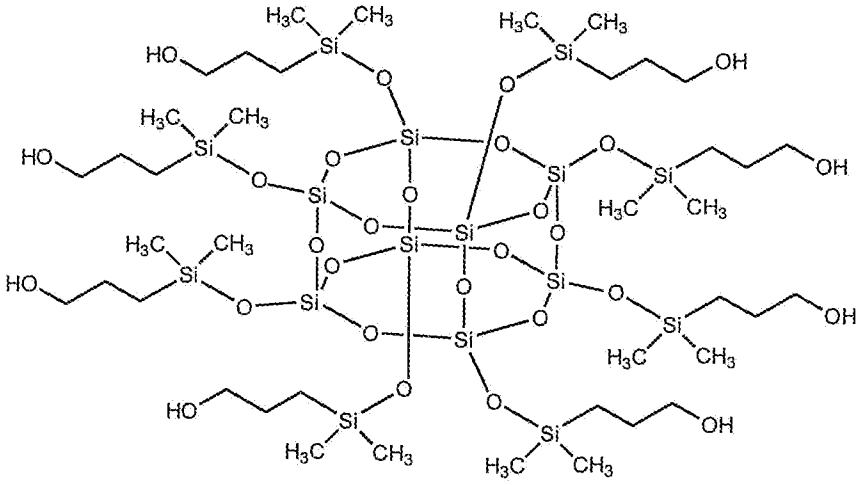
76. (Original) The method of claim 71, wherein said constituent has the formula



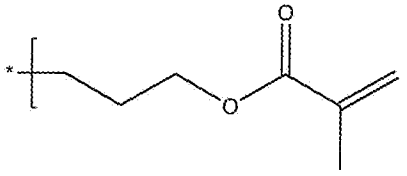
(III)

wherein each R^3 is individually selected from the group consisting of hydrogen, alkyls, aryls, hydroxypropyldimethylsilyloxy, and olefinic moieties.

77. (Original) The method of claim 76, wherein said constituent is a compound having the formula



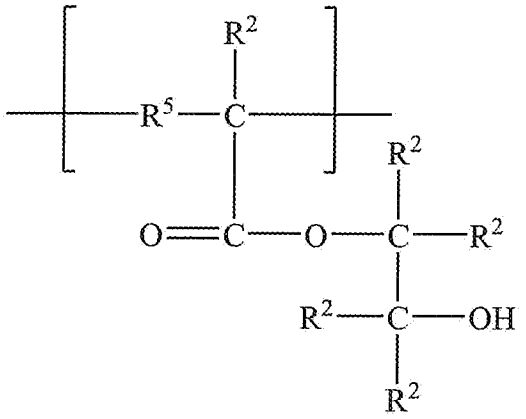
78. (Original) The method of claim 76, wherein at least one R^3 is



where "*" designates Si on (III).

79. (Previously Presented) The method of claim 71, said constituent being a polymer, and said polymer further comprising recurring monomers having an alcohol functionality.

80. (Previously Presented) The method of claim 79, said polymer comprising recurring monomers having the formula



(IV)

wherein each R^2 is individually selected from the group consisting of hydrogen, alkyls, and aryls, and each R^5 is individually selected from the group consisting of alkyls and aryls.

81. (Previously Presented) The method of claim 71, said composition further comprising a catalyst.

82. (Previously Presented) The method of claim 81, wherein said cross-linking agent is selected from the group consisting of aminoplast cross-linking agents.

83. (Canceled)

84. (Previously Presented) The method of claim 81, wherein said composition comprises a weak acid and a strong acid.

85. (Original) The method of claim 71, wherein said layer gives a spin bowl compatibility test result of at least about 90%.

86. (Original) The method of claim 71, further comprising the step of curing said layer, and wherein said cured layer has a thickness of less than about 2,150 Å.

87. (Original) The method of claim 73, further including the step of drying said photoresist, and wherein said dried photoresist has a thickness of less than about 200 nm.

88. (Original) The method of claim 74, further including the step of drying said photoresist, and wherein said dried photoresist has a thickness of less than about 200 nm.

89. (Previously Presented) In a composition for use in microlithographic processes, wherein the composition comprises a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane and that said compound comprises a polyhedral oligomeric silsesquioxane, said composition further comprising an ingredient selected from the group consisting of cross-linking agents, catalysts, and mixtures thereof, wherein said composition comprises a catalyst, and wherein said composition comprises a weak acid and a strong acid.

90. (Previously Presented) A structure used in microlithographic processes, said structure comprising:

a substrate;

a layer on said substrate, said layer formed from a composition comprising a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane and said compound comprises a polyhedral oligomeric silsesquioxane; and

a photoresist adjacent said layer.

91. (Previously Presented) A structure used in microlithographic processes, said structure comprising:

a substrate; and

a layer on said substrate, said layer formed from a composition comprising a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane and said compound comprises a polyhedral oligomeric silsesquioxane, wherein said composition further comprises an ingredient selected from the group consisting of cross-linking agents, catalysts, and mixtures thereof, wherein said ingredient is a cross-linking agent selected from the group consisting of aminoplast cross-linking agents, wherein said composition comprises a catalyst, and wherein said composition comprises a weak acid and a strong acid.

92. (Previously Presented) A method of forming a structure for use in microlithographic processes, said method comprising the steps of:

providing a substrate;

forming a layer of a composition on the substrate, said composition comprising a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane and that said compound comprises a polyhedral oligomeric silsesquioxane; and

applying a photoresist to said layer.

93. (Previously Presented) A method of forming a structure for use in microlithographic processes, said method comprising the steps of:

providing a substrate;

forming a layer of a composition on the substrate, said composition comprising a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane and that said compound comprises a polyhedral oligomeric silsesquioxane;

applying an anti-reflective coating to said substrate, wherein said layer forming step comprises applying the layer to said anti-reflective coating; and

applying a photoresist to said layer.

94. (Previously Presented) A method of forming a structure for use in microlithographic processes, said method comprising the steps of:

providing a substrate; and

forming a layer of a composition on the substrate, said composition comprising a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane and that said compound comprises a polyhedral oligomeric silsesquioxane, said composition further comprising an ingredient selected from the group consisting of cross-linking agents, catalysts, and mixtures thereof, wherein said composition comprises a catalyst, and wherein said composition comprises a weak acid and a strong acid.

95. (New) In a composition for use in microlithographic processes, wherein the composition comprises a constituent dissolved or dispersed in a solvent system, said constituent being selected from the group consisting of polymers, compounds, and mixtures thereof, the improvement being that said polymer includes recurring monomers comprising a polyhedral oligomeric silsesquioxane and that said compound comprises a polyhedral oligomeric silsesquioxane having an alcohol functionality, wherein when said constituent is a polymer, the polymer further comprises recurring monomers having an alcohol functionality and wherein said composition further comprises a cross-linking agent.